



Missouri SkillsUSA-VICA
Leadership and Skills
State Conference
April 24-26, 2003
Warrensburg, MO

Contest-Required Tools List

In absence of specific tools identified as "Required of the Contestants," default to the SkillsUSA-VICA National Technical Standards for required tools.

Every student must have a resume for each and every SKILLS and LEADERSHIP contest (not written contests) they are participating in. Resumes should be presented to contest chair at the time of the Pre-contest meeting on Thursday evening after the Opening General Session.

Revisions of required tools will be made between now and time of state contest!!

For clarification of information contact: Dr. Bart Washer (CMSU) (660) 543-4580 or
Dr. Paul Light (DESE) (573) 751-4460.

2003 Missouri SkillsUSA-VICA State Leadership and Skills Conference Tool List & Contest Location

Key: TRG = T.R. Gaines Building
G = Grinstead Building
JCKL = James C. Kirkpatrick Library
MPB = Multipurpose Building
COT = Construction Technology Building
AVT = Aviation Technology Building

NEW Submissions: **BOLD Font**
OLD Submissions: *Italicized Font*

*******ALL STUDENT CONTESTANTS: All students must wear proper eye protection (does NOT include prescription eye glasses unless fitted with shatter-resistant lenses and side shields).*******

Changes effective as of: April 24, 2003

<i>Date</i>	<i>Contest</i>	<i>Tools/Specifics Required of the Contestants</i>	<i>Location</i>	<i>Contest Chair</i>
2/5/03	<i>Automotive Service Technology</i>	<ul style="list-style-type: none">• <i>Pencil</i>• <i>Safety Glasses</i>• <i>Quality Shoes</i>• <i>A Digital Volt-OHM Meter (DVOM)</i>	<i>Precontestant Mtg: TRG 108 Contest: TRG 101 (South bay)</i>	<i>Doug Short, CMSU</i>

2/24/03		<ul style="list-style-type: none"> • <i>Hand-held Scantool of their choice (minimum 2002 updates)(Use 2002 or latest available update)</i> 		
2/5/03	<i>Diesel Equipment Technology</i>	<ul style="list-style-type: none"> • -Safety Glasses • -Sturdy Work boots • -A Typed Resume • -A Digital Volt-Ohm Meter (DVOM) 	<i>Precontestant Mtg: TRG 108 Contest: TRG 111</i>	<i>Scott Wilson, CMSU</i>
2/17/03	<i>Collision Repair Technology</i>	<ul style="list-style-type: none"> • <i>Body File</i> • <i>Flat and Pick Hammers</i> • <i>General Purpose Dolly</i> • <i>Air Sander</i> • <i>Spray Guns (base coat & clear coat)</i> • <i>Metal Grinder</i> • <i>Cartridge-type Respirator (Charcoal-filtered)</i> • <i>Welding Goggles</i> • <i>Welding Gloves</i> • <i>Safety Glasses</i> • <i>Paint Suit (Required)</i> • <i>Vise Grips</i> • <i>Air Hoses</i> • <i>M-style (Milton Style) Fittings</i> • <i>Battery or Solar-powered Calculator</i> 	<i>Precontestant Mtg: Warrensburg AVTS: LPN Room Contest: Warrensburg AVTS: Auto Collision and Auto Technology Labs</i>	<i>Tom Neal, B& B Automotive, Warrensburg; Chris Marten Crown Ford, Warrensburg</i>
2/28/03	<i>Video Production</i>	<p><i>NOTE: Non-linear editing system (instead of linear) will be used this year and supplied by CMSU. Contact Carol Knight: (cknight@cmsu1.cmsu.edu) with questions.</i></p> <ul style="list-style-type: none"> • <i>Camera system capable of recording video and outputting composite video, S-video, or Firewire IEEE-1394</i> • <i>Portable microphone, wired or wireless</i> • <i>Two batteries</i> • <i>Tripod</i> 	<i>Precontest Meeting: JCKL 1423 Friday AM Session: JCKL 1423 Friday PM Editing Session: Martin 125</i>	<i>Carol Knight, CMSU</i>
2/28/03	<i>Machine Tool</i>	<ul style="list-style-type: none"> • <i>Students must bring the following tool list to the contest site. Students will be disqualified if they do not bring these items. Cutter bits should be sharpened ready to go.</i> 	<i>Precontest Meeting: Grinstead 001 Contest: Metropolitan Community College Business & Technology College at 6899 Executive Drive, Kansas City. MO. 64120</i>	<i>Robert Ohrenberg, Jim Shimel, Penny Tepesch</i>

		<ul style="list-style-type: none"> • <i>Safety Glasses</i> • <i>5/16 Turning Tool Bit (High Speed – No Carbide)</i> • <i>5/16 Threading Tool Bit (High Speed – No Carbide)</i> • <i>5/16 Necking Tool Bit (High Speed – No Carbide-Grind to 0.125" width)</i> • <i>½ inch diameter, 2 flute (or 4 flute) High Speed Steel End Mill</i> • <i>0"-1" Micrometer</i> • <i>1"-2" Micrometer</i> • <i>Depth Micrometer</i> • <i>6" Scale</i> • <i>Combination Square Set</i> • <i>Protractor</i> • <i>Scriber</i> • <i>3" Dividers</i> • <i>Center Punch</i> • <i>Center Gage</i> • <i>De-burring File with Handle</i> • <i>Ball Peen Hammer</i> • <i>5/16" Drill (Ground Flat for Sharpening Exercises)</i> • <i>#3 or #4 Center-drill</i> • <i>Dial Caliper</i> • <i>Calculator</i> • <i>Pad and Pencil</i> 	<p><i>Contestant Lunch</i> <i>NOTE: Lunch will be provided at MCC. Machine Tool Contestants should NOT purchase a boxed lunch from CMSU on Friday, April 25.</i></p>	
2/28/03	<i>Culinary Arts</i>	<ul style="list-style-type: none"> • <i>No. 2 pencil, small note pad, if desired</i> • <i>French cook's knife</i> • <i>Knife steel</i> • <i>Boning knife</i> • <i>Slicing knife (meat)</i> • <i>Meat thermometer (pocket type)</i> • <i>Other Assorted Tools</i> • <i>Citrus zester</i> • <i>Tourner knife</i> • <i>Garnishing tools</i> • <i>Plastic squeeze bottles</i> • <i>Equipment and Small wares</i> • <i>Pastry bag (12-16in.)</i> • <i>Pastry tips (star tip, 1 ea.</i> 	<p><i>Precontest Meeting and Contest:-G246</i></p>	<p><i>Chef Karen Breshears, CMSU</i></p>

		<p><i>Small, medium, and large)</i></p> <ul style="list-style-type: none"> • <i>Sauté pans: 10 in., 1 ea.</i> • <i>Sauce pan: 3-4 qt</i> • <i>Cutting Glove (2)</i> • <i>The site will provide all other equipment.</i> • <i>Tool kits will be examined prior to the competition for fairness</i> 		
2/28/03	Commercial Baking	<ul style="list-style-type: none"> • <i>One palet Knife</i> • <i>Three pastry bags and tips and scissors</i> <ul style="list-style-type: none"> ○ <i>One star tip</i> ○ <i>One writing tip</i> ○ <i>One tip of choice</i> • <i>One bowl scraper</i> • <i>One dough knife</i> • <i>One serrated knife</i> • <i>One pastry wheel</i> • <i>One cake comb</i> • <i>Thermometer</i> • <i>Timer</i> • <i>No other food items allowed (e.g. sprinkles, decorattes, etc.)</i> <p><i>All other equipment will be provided at the site.</i></p> <p><i>Tool kits will be examined the night prior to the contest</i></p>	<p><i>Precontest Meeting: G240</i> <i>Contest: G240</i></p>	<p><i>Chef Karen Breshears, CMSU</i></p>
2/28/03	Food and Beverage Service		<p><i>Precontest Meeting & Contest: Panhellenic Dining Room</i></p>	
2/28/03	Pre-School Teaching Assistant		<p><i>Precontest meeting & Contest: Child Care Center, Foster Knox Building</i></p>	<p><i>Victoria Voland, CMSU</i></p>
2/28/03	Cabinetmaking	<p><i>Use National Tool List (NOTE: either a nail apron or carpenter's belt will suffice)</i></p>	<p><i>Precontest Meeting: G008</i> <i>Contest: G021 & G011</i></p>	<p><i>Joe Kupersmith, CMSU</i></p>
2/28/03	Power Equipment Technology (formally Air Cooled Gas Engines)	<ul style="list-style-type: none"> • <i>Handtools as appropriate for Briggs & Stratton 3.5 hp</i> • <i>Screwdrivers</i> • <i>Pliers</i> • <i>Wrenches, socket sets, and/or nut drivers</i> • <i>Hammer</i> • <i>Ring expander</i> • <i>Ring compressor</i> • <i>Valve spring compressor</i> • <i>Torque Wrenches</i> 		<p><i>Darren Starbuck, CMSU</i></p>

		<ul style="list-style-type: none"> • <i>inch-pound (i.e. for rod and head bolts)*</i> • <i>foot-pound (i.e. for flywheel nut)*</i> • <i>*Appropriate adapters are required</i> • <i>Volt/Ohm meter</i> • <i>Spark Tester</i> • <i>Tachometer</i> • <i>Flywheel puller</i> • <i>Safety Glasses</i> 		
	<i>Automated Manufacturing Technology</i>	<p><i>PROVIDED BY THE CONTESTANT:</i></p> <ul style="list-style-type: none"> • <i>Appropriate dress for machining.</i> • <i>Safety glasses for all team members</i> • <i>Computer system with the CAD software loaded that the team plans to use in the contest.</i> • <i>Three new, formatted 3.5" floppy disks.</i> • <i>caliper for quality measurements.</i> <p><i>PROVIDED BY THE TECHNICAL COMMITTEE</i></p> <ul style="list-style-type: none"> • <i>ProLight machines</i> • <i>required cutting tools and machine</i> • <i>accessories</i> • <i>one computer with MasterCam loaded</i> • <i>common printer with a</i> • <i>computer and an assistant for all contestants to use for printing needs.</i> • <i>light lunch</i> 	<ul style="list-style-type: none"> • <i>Precontest Meeting and Contest Location: ITTC, Room 106, Ozarks Technical Community College, Springfield, MO</i> • <i>OTC Contact: John Rude (417.895.7033)</i> • <i>CMSU Contact: Dr. Lyman Hannah</i> • <i>Precontest Meeting/Setup/Practice Time and Date: Wednesday, April 23, 2003, 5p – 9p</i> • <i>Contest Time and Date: Thursday, April 24, 2003, 8a-12p</i> 	<i>Dr. Lyman Hannah, CMSU</i>
<i>3/19/03</i>	<i>Welding</i>	<ul style="list-style-type: none"> • <i>National Tool List with the following additions:</i> • <i>Leathers (Cape sleeves & apron) or welding coat. Long sleeve shirts are NOT adequate</i> • <i>Magnetic squares are NOT allowed.</i> 	<i>Precontest Meeting: G122, CMSU Contest: 8:30a, Herndon Career Center West Campus, Raytown, MO (Bus departs west side of Multipurpose Building, 7:30am)</i>	<i>John Sutton & Brian Wise</i>
<i>3/19/03</i>	<i>Industrial Motor Control</i>	<p><i>Use National Tool List with the following additions:</i></p> <p><i>Contest will use Square D Components</i></p>	<p><i>Precontest Meeting: MPB, Northwest Corner</i></p> <p><i>Contest Meeting: MPB, Northwest</i></p>	<i>Jerry Mook John Battle Dave Rouchka</i>

			<i>Corner</i>	
3/19/03	<i>Residential Wiring</i>	<i>Use National Tool List with the following deletions:</i> <i>No screw gun. Screw guns will be provided by the technical committee</i>	<i>Precontest Meeting:</i> <i>MPB, Northwest Corner</i> <i>Contest Meeting:</i> <i>MPB, Northwest Corner</i>	<i>Dick Mathews</i> <i>Shon Lee</i> <i>Ken Garthe</i>
3/19/03	<i>Telecommunications Cabling</i>	<i>Use National Tool List</i>	<i>Precontest Meeting:</i> <i>MPB, Northwest Corner</i> <i>Contest Meeting:</i> <i>MPB, Northwest Corner</i>	<i>Mick Owens</i>
3/25/03	<i>Residential Plumbing</i>		<i>Precontest Meeting:</i> <i>COT 105</i> <i>Contest at Johnson County Fairgrounds</i>	<i>Dale Chaney,</i> <i>Economy Lumber</i>
3/25/03	<i>Mechatronics</i>	<ul style="list-style-type: none"> • <i>Volt-Ohm Meter</i> <i>(all other components will be supplied by the Technical Committee)</i>	<i>Precontest Meeting:</i> <i>TBA</i> <i>Contest: State Fair Community College, Sedalia</i>	<i>Steve Snodgrass,</i> <i>SFCC</i>
3/25/03	<i>Architectural Drafting</i>	<i>Provided by the Technical Committee:</i> <ul style="list-style-type: none"> • <i>AutoCAD v2002</i> • <i>Architectural Desktop v3.3</i> • <i>Chief Architect v8</i> • <i>(additional student software will not be allowed)</i> • <i>Vemco Drafting Machines</i> <i>Provided by Contestant:</i> <ul style="list-style-type: none"> • <i>Reference Manuals for CAD & OS packages</i> • <i>Manual Drafting Tools</i> 	<i>Precontest Meeting:</i> <i>G210</i> <i>Contest: G209 & G210</i>	<i>Kyle Palmer</i> <i>Ben Yates</i>
3/25/03	<i>Technical Drafting</i>	<i>Provided by the Technical Committee:</i> <ul style="list-style-type: none"> • <i>AutoCAD v2002</i> • <i>Mechanical Desktop v6</i> • <i>(additional student software will not be allowed)</i> • <i>Vemco Drafting Machines</i> <i>Provided by Contestant:</i> <ul style="list-style-type: none"> • <i>Reference Manuals for CAD & OS packages</i> • <i>Manual Drafting Tools</i> 	<i>Precontest Meeting:</i> <i>G206</i> <i>Contest: G206 & G208</i>	<i>Jeff Campbell</i> <i>Aaron Schroeder</i>
3/25/03	<i>Computer Programming</i>	<i>Provided by Technical Committee: Networked Computer Lab, AS400,</i>	<i>Precontest Meeting:</i> <i>G201</i> <i>Contest: G201</i>	<i>Walt Meister</i> <i>Ken Morganstern</i>

		<p><i>Networked Printer.</i></p> <p><i>Provided by Contestants:</i></p> <ul style="list-style-type: none"> • <i>textbook or reference manual of their programming language</i> • <i>3 printed samples of student-written programs (from the past)</i> • <i>paper and pencil</i> • <i>resume</i> 		
3/25/03	Aviation	All Tools Provided by the Technical Committee	<p><i>Precontest Meeting: AVT 108</i></p> <p><i>Contest: AVT Building</i></p>	<p><i>Philip Bos</i> <i>Travis Miller</i></p>
4/7/03	Internetworking	<p><i>Please bring the following items <u>in addition</u> to those listed in the VICA U.S. Skill Olympics Regulations and Technical Standards manual.</i></p> <p><i>The contestant will need to bring everything needed to set up a small Internetworking environment. You will need to bring your routers (2 per contestant), computers (2 per contestant), 2 switches (2 per contestant), and 2 hubs (2 per contestant). In addition to all necessary pre-made cables, bring extra RJ-45 connectors, cable, and tools.</i></p> <p><i>The contest will follow the 2.14 curriculum.</i></p>	<p><i>Precontest Meeting: TRG 313</i></p> <p><i>Contest: TRG 313</i></p>	<p><i>Edwin</i> <i>Balasingam</i></p>
4/7/03	Electronics Technology	<p><i>Please bring the following items <u>in addition</u> to those listed in the VICA U.S. Skill Olympics Regulations and Technical Standards manual.</i></p> <ol style="list-style-type: none"> <i>1. <u>1</u> Solderless Breadboard with approximately 840 tie points on each.</i> <i>2. A Dual channel <u>Analog Oscilloscope</u> and VOM.</i> <p><i><u>No DSOs (Digital Storage Oscilloscopes) will not be allowed.</u> The national contest last year provided analog oscilloscopes in order to determine if the contestants could take accurate</i></p>	<p><i>Precontest Meeting: TRG 301</i></p> <p><i>Contest: TRG 301</i></p>	<p><i>Dave Gillespie</i></p>

		<p><i>measurements by reading the scales on the oscilloscope. A DSO displays the values on the screen and the user does not even have to be able to read a simple voltage or time scale. This year the scopes are also provided at the national contest. You can probably guess whether they are going to be analog or DSOs.</i></p> <p><i>The scope and VOM will be used in both the troubleshooting phase of the contest and in the small design/construction project.</i></p> <p><i>3. 10 feet of 20 - 29 AWG wire for your breadboards, not precut into less than 6 inch strips. This will be more than enough wire for the small design/construction project.</i></p> <p><i>4. The contest involves both soldering and desoldering.</i></p> <p><i>A soldering iron of approximately 40 Watts is suggested. The corporation that is judging the soldering uses a 40 Watt 115 vac HEXACON model 24H soldering iron with a HEXAGON model HT691D 1/16 inch wide tip and an AMERICAN BEAUTY model 701 1/8 inch wide tip on this board. ** The solder will be provided.</i></p> <p><i>A desoldering pump, desoldering braid, or desoldering station will be required.</i></p> <p><i>A small soldering/desoldering station is allowed. There will not be enough room on the student's work area for the large soldering/desoldering workstations!</i></p> <p><i>5. Three power supplies: +5v, -12v, and +12v supplies</i></p>		
--	--	---	--	--

		<p><i>A power supply that will output 5v at 500 ma.</i></p> <p><i>Positive and negative power supplies that will provide a very minimum of plus and minus 12v at 200ma. These two supplies can be as high as positive and negative 15v.</i></p> <p><i>A number of trainers have these power supplies built into them - you can bring a trainer if you wish to do so.</i></p> <p><i>Note: In the past we have had students bring in a 6v supply instead of 5v supplies. The power supplies are checked on Thursday evening and points will be deducted if the power supplies are not correct.</i></p> <p><i>6. Calculator</i></p> <p><i>If you have any questions on the above, call Dave Gillespie at 1-660-543-4432 between the hours of 6:00am and 6:00pm Monday through Friday.</i></p>		
4/7/03	Computer Maintenance	<p><i>The Equipment and Materials supplied are as stated in the National Standards guide. They are paraphrased below for those who do not have the guide. <u>There are no additions.</u></i></p> <p><i>The students will need to bring:</i></p> <ul style="list-style-type: none"> <i>A. Pencils</i> <i>B. Basic electronic hand tools (including a set of four or five flat-blade and three or four Phillips-head screwdrivers.</i> <i>C. Anti-static strap</i> <i>D. DVOM or VOM</i> <i>E. Diagnostic software/hardware. This includes anti-virus software. The user must provide proof of ownership for the software. This could be a copy of the paid invoice for the software or copy of the Shareware agreement with paid receipt.</i> <i>F. One computer related</i> 	<p><i>Precontest Meeting: TRG 305</i></p> <p><i>Contest: TRG 305</i></p>	Chris McKnight

		<p><i>reference book or notebook.</i></p> <p><i>If you have any questions on the above, call Dave Gillespie at 1-660-543-4432 between the hours of 6:00am and 6:00pm Monday through Friday.</i></p>		
4/17/03	Electronics Applications	Oscilloscope Probe DVOM		Clark Homily
4/17/03	Building Repair Technology	<ul style="list-style-type: none"> • screwdrivers, both common and phillips • wire strippers • pliers • utility knife • broad knife (taping blade) • square or speed square • tape measure • tubing cutter • solder, flux and flux brush • glass cutter • pencil 		Saeed Akhtar Jerry Green
4/17/03	Carpentry	<p>Use National Tool List EXCEPT (do NOT bring the following items):</p> <ul style="list-style-type: none"> i. One each- 1 and 2 pt. Phillips and 4" and 8" standard screwdrivers k. Coping Saw and extra blades n. One each 1/32", 2/32", and 3/32" nail sets o. Straight aviation snip or any metal cutting snips q. Blockplane u One pair slip joint pliers 		Richard Bruce
4/17/03	HVAC	<ul style="list-style-type: none"> • Volt-Ohm Meter • Clamp-on Ammeter • Safety Glasses • All other tools optional 		
4/24/03	Graphic Arts	Graphics Communication students/teachers <u>WILL NOT</u> need to bring any tools to the contest. All necessary tools and equipment will be provided by the Technical Committee administering the test.		Mark Rankin